

**REMARKS**

Claims 2 – 6, 11, 21 – 24, 29, 31 - 33 and 39 – 55 were pending in the instant application when last examined. Claims 2 – 6, 11, 21 – 24, 29, 31 - 33 and 39 – 42 are allowed. Claims 43, 48 and 54 are being amended herein to place them in a condition for allowance. No new matter is being added and claims 2 – 6, 11, 21 – 22, 24, 29, 31 - 33 and 39 – 55 are pending in the instant application. Reconsideration and allowance are respectfully requested.

**Rejections under 35 U.S.C. § 101**

In items 4 – 5, beginning on page 2, the office action rejected claims 43 – 55 under 35 U.S.C. § 101, alleging that the claimed invention is directed to non-statutory subject matter.

In item 4 on page 2, the Office Action states that:

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the claimed subject matter is directed to a “practical application”; or
- (2) whether the invention produces “a useful, concrete and tangible result.”, that is, whether the claimed subject matter is applied in a practical manner to produce a useful result. “[C]ertain types of mathematical subject matter, standing alone, represent nothing more than abstract ideas until reduced to some type of practical application, i.e., ‘a useful, concrete and tangible result.’ (State Street, 149 F.3d 1373, 47 USPQd at 1600-01 (citing Alppat, 33 F.3d 1544, 31 USPQ2d at 1557)).

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract ideas, law of nature, natural phenomena) that do not apply, involve, use, or advance technological arts fail to promote the “progress of science and the useful arts” (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

(A) In the present case, claims 43-55 recite an abstract idea only. The recited method and steps of the claims merely, a) organized according to a first data schema, defining a virtual data model, determining from the virtual data model, receiving input, creating a third database, creating a first mapping, creating a second mapping, selectively migrating information, and a virtual data model in claim 43; and b) receiving a definition, generating a data warehouse, providing the data warehouse, receiving input, dynamically creating a database, creating a first dimension, creating a fact table, and displaying a portion of the dynamically generated database in claim 48; and (c) creating a mapping, migrating data from a data source, and providing data do not apply, involve, use, or advance the technological arts since all of the recited method steps can be performed in the mind of the user or by use of a pencil and paper. These steps only constitute an idea of how to analyze and visualize information. The claims do not have a computer performing the method in the preamble or a computer in the body of the claims performing the organizing, receiving a definition, and creating a mapping.

In addition, for a claimed invention to be statutory, it must produce a useful, concrete, and tangible result. In the present case, the claimed invention produces a method for the virtual data model to comprise a reverse star schema, receiving a definition of a reverse star schema meta-model and providing the data to the OLAP server (i.e., useful and tangible).

Although the recited process produces a useful, concrete, and tangible result, since the claimed invention, as a whole, is not within the technological arts as explained above, claims 43-55 are deemed to be directed to non-statutory subject matter.

With respect to the rejection under 35 U.S.C § 101, the Examiner asserts that the claimed invention does not fall within the technological arts because no form of technology is disclosed or claimed.

Applicant respectfully traverses.

Applicant respectfully submits that the rejection is improper for at least the following reasons: 1) the embodiments recited by claims 43 - 55 are directed to a practical application; 2) the embodiment recited by claims 43 – 55 produces a concrete useful and tangible result; and 3) Applicant's intended embodiment recited by claims 43 – 55 is performed by a computer.

The embodiments recited by claims 43 - 55 are directed to practical applications, in contrast to the abstract ideas (i.e., abstract ideas, law of nature, natural phenomena) that the Office Action argues, “do not apply, involve, use, or advance technological arts” and “fail to promote the ‘progress of science and the useful arts’.” The embodiments recited by claims 43 – 55 can provide the following practical applications stated in Applicant's specification:

The present invention can provide techniques for visualizing data relationships that can be customized to fit different business needs. Yet further, some embodiments using the techniques and data models according to the present invention can be used to solve customer data analysis problems. Many embodiments can provide the ability to users to customize their data displays for use with generic and reusable customer data analysis functions. Embodiments can provide dynamic viewing of customer dynamics and business dynamics. Many embodiments enable business applications to be built more easily, quickly and with greater expandability than heretofore known methods.

Clearly, embodiments recited by claims 43 – 55 promote the ‘progress of science and the useful arts’ at least because these embodiments can enable practical applications such as solving customer data analysis problems, customizing data displays and dynamic visualization of customer dynamics and business dynamics and others.

The embodiments recited by claims 43 – 55 produce a useful, concrete, and tangible result. As admitted on page 4 of the Office Action:

In the present case, the claimed invention produces a method for the virtual data model to comprise a reverse star schema, receiving a definition of a reverse star schema meta-model and providing the data to the OLAP server (i.e.,

useful and tangible). Although the recited process produces a useful, concrete, and tangible result, since the claimed invention ...

The Office Action, however, maintained the rejection even though Applicant's embodiments recited by claims 43 – 55 are admitted to provide a useful, concrete, and tangible result. The Federal Circuit in *State Street*, stated that the “useful, concrete, and tangible result” test distinguishes, “certain types of mathematical subject matter, standing alone, [that] represent nothing more than abstract ideas until reduced to some type of practical application, i.e., ‘a useful, concrete and tangible result.’” (*State Street*, 149 F.3d 1373, 47 USPQd at 1600-01 (citing *Alpat*, 33 F.3d 1544, 31 USPQ2d at 1557)). The embodiments recited by claims 43 – 55 are not “mathematical subject matter, standing alone, [that] represents nothing more than abstract ideas.” Additionally, as previously described, embodiments recited by claims 43 – 55 provide practical applications such as solving customer data analysis problems, customizing data displays and dynamic visualization of customer dynamics and business dynamics.

The intended embodiment recited by claims 43 – 55 is a method performed using a computer (Applicant's FIGS. 1A and 1B). However, to expedite issuance of a patent, Applicant has amended independent claims 43, 48 and 54 to recite that Applicant's intended embodiment is a “computer implemented method” to clarify that the processing of the at least one embodiment recited by these claims is carried out by a computer. No new matter is being added. The claims are now in condition for allowance.

Claims 44 – 47, 49 – 53 and 55 are dependent upon Claims 43, 48 and 54 respectively, and thus include each and every feature of the corresponding independent claims. Each of Claims 44 – 47, 49 – 53 and 55 is therefore allowable for the reasons given above for the Claims 43, 48 and 54.


For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Respectfully submitted,

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